

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method in a data communication system wherein data is transmitted by use of at least two protocols that are capable of re-transmission of data, said protocols being implemented in nodes of said data communication system, the implementation of a protocol implemented in a transmitting node being a transmitting protocol entity and the implementation of a protocol in a receiving node being a receiving protocol entity, one of said at least two protocols capable of re-transmission of data being a higher layer protocol than another of said at least two protocols, said another protocol therefore being a lower layer protocol, the method comprising:

transmitting, from a higher layer transmitting protocol entity, a protocol data unit to a lower layer transmitting protocol entity;

receiving, in said higher layer transmitting protocol entity, a transmission result from said lower layer transmitting protocol entity, said transmission result reporting the result of the transmission of said protocol data unit by said lower layer transmitting protocol entity; and

deciding, responsive to said transmission result, whether the higher layer transmitting protocol entity should re-provide said lower layer transmitting protocol entity with said protocol data unit, wherein the higher layer transmitting protocol entity does not re-provide the protocol data unit to the lower layer transmitting protocol entity until after it has received the transmission result.

2. (Previously Presented) The method of claim 1, wherein encapsulation of data is carried out by means of protocols located in different nodes.

3. (Previously Presented) The method of claim 1, wherein said protocol data unit is identified by an identifier local to the communication between the higher layer transmitting protocol entity and the lower layer transmitting protocol entity.

4. (Previously Presented) The method of claim 3, wherein said identifier is assigned to said protocol data unit by said higher layer transmitting protocol entity.

5. (Previously Presented) The method of claim 3, wherein said higher layer transmitting protocol entity receives an acknowledgement of reception of said protocol data unit from said lower layer transmitting protocol entity after having provided said lower layer transmitting protocol entity with said protocol data unit, said protocol data unit being identified by said identifier in said acknowledgement of reception.

6. Canceled.

7. (Previously Presented) The method of claim 1, wherein said transmission result is transmitted to said higher layer transmitting protocol entity in a message which is transparently relayed by any intermediate protocol entities that are logically positioned between the higher layer transmitting protocol entity and the lower layer transmitting protocol entity.

8. (Previously Presented) The method of claim 1, wherein said protocol data unit is identified by an identifier assigned by the lower layer transmitting protocol entity.

9. Canceled.

10. (Previously Presented) The method of claim 1, wherein said higher layer transmitting protocol entity and said lower layer transmitting protocol entities are located within different nodes.

11. (Previously Presented) The method of claim 1, wherein said data communication system comprises a radio interface.

12. (Previously Presented) The method of claim 11, wherein said radio interface is a radio interface in a mobile radio communication system.

13. (Previously Presented) The method of claim 12, wherein said mobile radio communication system is a mobile radio communication system operating according to the General Packet Radio System standard; and

the higher layer transmitting protocol entity is a Logical Link Control protocol and the lower layer transmitting protocol entity is a Radio Link Control/Media Access Control protocol.

14-21. Canceled.

22. (Currently Amended) A non-transitory computer readable medium storing computer software that includes computer code portions to be run on a computer that implements a higher layer transmitting protocol entity of a data communications system and computer code portions to be run on a computer that implements a lower layer transmitting protocol entity of the data communications system, wherein the higher layer transmitting protocol entity and the lower layer transmitting protocol entity are both capable of re-transmitting data, and wherein the computer software causes the higher and lower layer transmitting protocol entities to perform a method comprising:

transmitting, from the higher layer transmitting protocol entity, a protocol data unit to the lower layer transmitting protocol entity; receiving, in said higher layer transmitting protocol entity, a transmission result communicated from said lower layer transmitting protocol entity, said transmission result reporting the result of the

transmission of said protocol data unit by said lower layer transmitting protocol entity;
and

deciding, based on the transmission result, whether the higher layer transmitting protocol entity should re-provide said lower layer transmitting protocol entity with said protocol data unit, wherein the higher layer transmitting protocol entity does not re-provide the lower layer transmitting protocol entity with the protocol data unit until after it receives the transmission result communicated from the lower layer transmitting protocol entity.

23. (Currently Amended) The non-transitory computer readable medium of claim 22, wherein the computer software also causes the higher layer transmitting protocol entity to allocate an identifier to each protocol data unit transmitted to the lower layer transmitting protocol entity.

24. (Currently Amended) The non-transitory computer readable medium of claim 22, wherein the computer software also causes the lower layer transmitting protocol entity to allocate an identifier to each protocol data unit received from the higher layer transmitting protocol entity.

25. (Currently Amended) The non-transitory computer readable medium of claim 22, wherein the computer software causes the higher layer transmitting protocol entity to communicate using a Logical Link Control protocol.

26. (Currently Amended) The non-transitory computer readable medium of claim 22, wherein the computer software causes the lower layer transmitting protocol entity to communicate using a Radio Link Control/Media Access Control protocol.

27. (Currently Amended) The non-transitory computer readable medium of claim 22, wherein the computer software also causes the lower layer transmitting

protocol entity to send a receipt acknowledgment to the higher layer transmitting protocol entity upon receipt of the protocol data unit.

28. (Currently Amended) The non-transitory computer readable medium of claim 27, wherein the computer software causes the lower layer transmitting protocol entity to include an identifier assigned to the protocol data unit in the receipt acknowledgment sent to the higher layer transmitting protocol entity.

29. (Currently Amended) The non-transitory computer readable medium of claim 28, wherein the identifier is assigned to the data unit by the higher layer transmitting protocol entity.

30. (Currently Amended) The non-transitory computer readable medium of claim 28, wherein the identifier is assigned to the data unit by the lower layer transmitting protocol entity.